

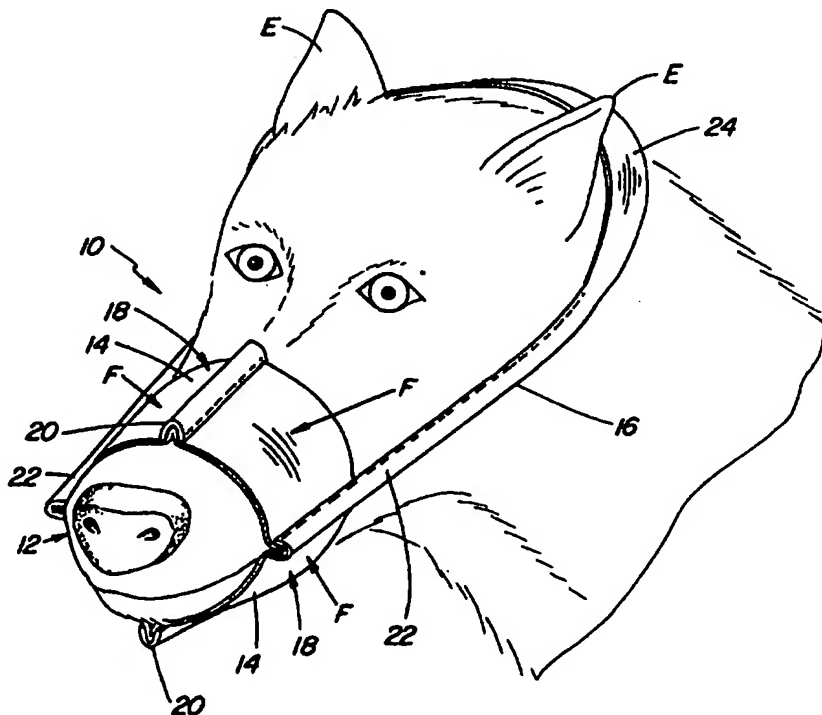


INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶: A01K 25/00	A1	(11) International Publication Number: WO 97/24028 (43) International Publication Date: 10 July 1997 (10.07.97)
(21) International Application Number: PCT/CA96/00872 (22) International Filing Date: 23 December 1996 (23.12.96) (30) Priority Data: 2,166,347 29 December 1995 (29.12.95) CA (60) Parent Application or Grant (63) Related by Continuation US 08/589,951 (CIP) Filed on 23 January 1996 (23.01.96) (71) Applicant (for all designated States except US): HUSHER INTERNATIONAL INC. [CA/CA]; P.O. Box 272, Russell, Ontario K4R 1E1 (CA). (72) Inventors; and (75) Inventors/Applicants (for US only): PAGLERICCIO, Fernando, Paulo [CA/CA]; P.O. Box 272, Russell, Ontario K4R 1E1 (CA). PAGLERICCIO, Sandra, D. [CA/CA]; P.O. Box 272, Russell, Ontario K4R 1E1 (CA). (74) Agent: MACRAE & CO.; Station B, P.O. Box 806, Ottawa, Ontario K1P 5T4 (CA).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>

(54) Title: ANTI-BARKING AND ANTI-BITING MUZZLE FOR DOGS**(57) Abstract**

An anti-barking and anti-biting muzzle for dogs includes a muzzle portion formed from a pair of generally trapezoidal flaps of elastic material sewn together along the converging edges thereof, with the flaps preferably being further divided by a seam along the longitudinal centerline thereof to create four panel members of the elastic material. An elongated strap is connected at its ends to opposed seams of the muzzle portion. The muzzle can be slid onto the snout of a dog and the strap fitted over the dog's head behind its ears. The muzzle portion has a snug fit on the snout but the elasticity of the material allows the dog to open its jaws slightly for panting. If the dog tries to open its jaws wider to bark or bite the four elastic panel members apply a force to the jaws to prevent them from opening wide. The muzzle is not uncomfortable and it acts as a training aid since the animal associates the wearing of the muzzle as a form of punishment for barking or biting. It soon learns to stop barking or biting when it even sees the muzzle. The muzzle can be quickly removed by applying an upward or lifting force on the strap behind the ears, important if the dog is relied upon to provide security for a human attendant.



FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AM	Armenia	GB	United Kingdom	MW	Malawi
AT	Austria	GE	Georgia	MX	Mexico
AU	Australia	GN	Guinea	NE	Niger
BB	Barbados	GR	Greece	NL	Netherlands
BE	Belgium	HU	Hungary	NO	Norway
BF	Burkina Faso	IE	Ireland	NZ	New Zealand
BG	Bulgaria	IT	Italy	PL	Poland
BJ	Benin	JP	Japan	PT	Portugal
BR	Brazil	KE	Kenya	RO	Romania
BY	Belarus	KG	Kyrgyzstan	RU	Russian Federation
CA	Canada	KP	Democratic People's Republic of Korea	SD	Sudan
CF	Central African Republic			SE	Sweden
CG	Congo	KR	Republic of Korea	SG	Singapore
CH	Switzerland	KZ	Kazakhstan	SI	Slovenia
CI	Côte d'Ivoire	LI	Liechtenstein	SK	Slovakia
CM	Cameroon	LK	Sri Lanka	SN	Senegal
CN	China	LR	Liberia	SZ	Swaziland
CS	Czechoslovakia	LT	Lithuania	TD	Chad
CZ	Czech Republic	LU	Luxembourg	TG	Togo
DE	Germany	LV	Latvia	TJ	Tajikistan
DK	Denmark	MC	Monaco	TT	Trinidad and Tobago
EE	Estonia	MD	Republic of Moldova	UA	Ukraine
ES	Spain	MG	Madagascar	UG	Uganda
FI	Finland	ML	Mali	US	United States of America
FR	France	MN	Mongolia	UZ	Uzbekistan
GA	Gabon	MR	Mauritania	VN	Viet Nam

ANTI-BARKING AND ANTI-BITING MUZZLE FOR DOGS

The present invention relates to a device for keeping animals, such as dogs, quiet. In particular it relates to an elasticized muzzle device that will keep a dog from
5 barking or biting while allowing the dog to breathe and pant as he wishes.

BACKGROUND OF THE INVENTION

There are many devices available to prevent dogs, especially large dogs, from opening their mouths. The most
10 common is a muzzle, usually made from leather in the form of a halter or harness. The muzzle is fitted over the dog's mouth and a strap fits around the back of the dog's head. Often there is a strap that fits around the dog's neck. This type of muzzle is effective, but it has to be quite
15 tight in order to keep the dog's mouth shut. It can also be harmful to the dog, perhaps preventing it from panting on a hot day, or even chafing the tender sides of the dog's mouth. The muzzle is effective in stopping the dog from barking or opening its jaws. Very often, this type of
20 muzzle is primarily used to stop a dog from biting or to calm people or other dogs that the muzzle-wearer might encounter.

There are problems associated with the barking of dogs, especially dogs being housed at a kennel. In such
25 surroundings one barking dog will often start other dogs barking until there is uncontrollable noise emanating from the kennel. This can be a serious problem in urban areas,

prompting complaints from neighbors of the kennel owners. Muzzles such as described above provide only a partially satisfactory answer to the problem of barking dogs, particularly since the dogs will quickly view the muzzle as
5 a punishment and will try to avoid having a muzzle fitted to them. Other attempts at preventing barking are only partially satisfactory as well, including electronic devices attached to the dog's collar. They tend to chafe the dog's neck and destroy the animal's coat. They also do not always
10 work and are very expensive.

There is a need for a device that is not uncomfortable to the dog, that is inexpensive to produce, and that will be effective in stopping a dog from barking.

SUMMARY OF THE INVENTION

15 The present invention meets the above requirements. It provides an elastic muzzle that is inexpensive to produce, that is easy to affix to a dog's head, that is not uncomfortable, that effectively stops the dog from barking, biting, or chewing, and which can be easily and quickly
20 removed when necessary.

The anti-barking and anti-biting muzzle of this invention utilizes a pair of generally trapezoidal flaps of elastic material, connected together along the edges to form a frustoconical muzzle. Each of the flaps is preferably
25 then stitched or seamed along its centerline to create four equally sized panels. An elongated strap is then stitched at each end thereof to the diametrically opposite edges of the straps. The muzzle can be easily slid onto the snout of

a dog and the strap pulled over the ears and fixed at the back of the dog's head. The elastic flap portions apply an inwardly angled force against the dog's snout preventing the mouth from opening enough for the dog to bark or bite.

5 However the dog can still open its mouth enough to pant if it desires. Should there be a need for the dog's human companion to remove the muzzle, as in a dangerous situation, the human can grab the strap and very quickly pull the muzzle from the dog's snout. On the other hand, the dog

10 cannot remove the strap of its own accord. The elastic muzzle of this invention is not uncomfortable for the dog. Furthermore, the dog quickly learns to associate the muzzle with a human's desire for the dog to stop barking and soon even the sight of the muzzle will be sufficient to stop the

15 dog from barking.

Broadly speaking, therefore the present invention can be considered as providing an anti-barking and anti-biting muzzle for animals comprising a muzzle portion adapted to fit over the snout of the animal and a strap portion adapted

20 to fit over the head of the animal, and to be secured behind the head of the animal, the muzzle portion including at least two generally trapezoidal panel members of elastic material with the panel members connected together along the adjacent edges thereof to create a generally frustoconical

25 shape, the strap portion being connected at each end thereof to opposed seams of the muzzle portion.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a perspective view of a dog's snout with the elastic muzzle of the invention thereon.

Figure 2 is a plan view of an elastic flap used with
5 this invention.

Figure 3 is a plan view of the strap member used with this invention.

Figure 4 is a perspective view of the preferred elastic muzzle of this invention.

10 Figures 5 and 6 are perspective views of alternative constructions for the elastic muzzle of this invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Figure 1 shows a perspective view of an anti-barking muzzle 10 of this invention fitted to the snout 12 of a dog, such as a German Shepherd. It is seen that the muzzle 10
15 includes four panel members 14 and a strap member 16 that extends from the muzzle 10 and fits around the back of the dog's head, behind its ears, E. The panel members 14 are preferably created from two identical flaps 18 of an elastic
20 material such as Lycra™ or Spandex™, one of the flaps being seen in Figure 2. Each flap 18 is generally trapezoidal in plan view, with typical dimensions of 5½ inches and 4 inches for the parallel edges and 3 inches for the converging edges. This will produce a muzzle for a medium to large
25 sized dog. Smaller dimensions can be used to create a muzzle for a small dog.

The two flaps 18 are sewn together along the converging edges to create a generally frustoconical muzzle-

shaped member. Such a muzzle-shaped member is shown by the reference number 30 in Figure 5 as part of a very basic muzzle 32 of this invention. While a two-panel muzzle as shown in Figure 5 is fully operable it does not provide the best effectiveness as an anti-barking muzzle. In order to provide the most effective anti-barking muzzle it is necessary to divide each of the flaps 18 in half, along the centerline C thereof which extends normal to the parallel edges of the flap. This is done by stitching a narrow band of non-elastic material 20 to a narrow doubled-over part of the flap, as best seen in Figure 4. This provides the four panel members 14 of elastic material with diagonally opposite panel members being identical, and mirror images to the other diagonally opposite panel members. Another embodiment 34 is shown in Figure 6 wherein the upper of the two flaps 18 is sewn along its centerline C so as to create two upper panel members 36, leaving the lower flap 18 as a single panel member. This embodiment is intermediate in effectiveness between the most basic, two-panel, embodiment of Figure 5 and the preferred embodiment, the four-panel version, shown in Figure 4.

Although the present invention has been particularly described as using four panel members 14 formed from two flaps 18, it has been found that the same results can be achieved with more than four panel members. The muzzle of the invention is effective with, for example, six or eight panel members formed about the periphery of the muzzle portion. However, fewer than four panel members reduces dramatically the effectiveness of the invention.

Additionally, it should be understood that the panel members 14 could be individual panels, rather than part of larger flaps, and sewn together along adjacent edges to create the muzzle.

5 Figures 3 and 4 show the elongated strap 16 which is connected at each end to the stitched together edges of the flaps 18. The strap 16 is doubled over and stitched together over about a third of its length from each end, as at 22, leaving a wider central section 24. Typically the
10 strap 16 will have an overall length of about 24 inches for a medium to large animal muzzle, with the central section 24 being about 8 inches long. The strap will be made from a heavy nylon, cotton or denim material. If desired, to accommodate different sized dogs, it would be possible to
15 make the strap 16 adjustable in length in any known manner. For example the wider strap section 24 could be overlapped to shorten the length thereof and then clamped with a pin or a clamp to prevent it from loosening.

Figure 4 shows the muzzle 10 as assembled and ready to
20 be positioned on the head of a dog. The two divided flaps 18 are seen, as are the panel members 14 and the strap 16. Since the muzzle has a shape that is generally frustoconical or converging towards the front it will fit over the generally tapering snout of a dog and not be uncomfortable
25 thereon. Should the dog try to open its jaws wide in order to bark, bite, or chew there will be a reactive force F as seen in Figure 1 directed inwardly and angularly against the outer edges of the top and bottom jaws by the four elastic panel members 14. However, the dog can still open its jaws

by a small amount to allow its tongue access to the air for panting if necessary. The strap 16 catches the back of the dog's skull, behind its ears, and cannot be removed by the dog, even if it tries rubbing the strap against a post or
5 other object. Should the dog be especially clever and succeed in removing the strap 16 it would be possible to attach a removable chin strap 26 as seen in Figure 4 as a further deterrent to removal.

In the event that the dog is accompanying a human and
10 is wearing the muzzle, the human in attendance can still feel protected by the dog, since it is very easy for the human to grasp the strap and slip it over the dog's head so that the muzzle can be slipped from the dog's snout.

In summary, it is seen that the elastic anti-barking
15 and anti-biting muzzle of this invention meets the design criteria set forth hereinabove in that it is inexpensive to produce, is not uncomfortable for the animal wearing it, is effective in preventing the animal from barking or biting, and is easily removed should the necessity arise. It has
20 been found that dogs do not object strenuously to the muzzle of this invention being fitted to them and it has also been found that dogs quickly associate the muzzle with a human's desire for the dog to stop barking. If the dog does not want to wear the muzzle it realizes that its only option is
25 to stop barking and usually it will stop.

The foregoing has described the essential features of the present invention. It is understood, however, that changes to the invention could be effected by a skilled person in the art and accordingly the protection to be

8

afforded this invention is to be determined from the scope
of the claims appended hereto.

CLAIMS

1. An anti-barking and anti-biting muzzle for animals comprising a muzzle portion adapted to fit over the snout of the animal and a strap portion adapted to fit over the head of the animal and to be secured behind the head of said animal, said muzzle portion including at least four panel members of elastic material with adjacent panel members connected together along the adjacent edges thereof to create a generally frustoconical shape, said strap portion being connected at each end thereof to diametrically opposed seams of said muzzle portion.

2. The muzzle of claim 1 wherein said muzzle portion is formed from a pair of identical generally trapezoidal flaps of said elastic material having longer and shorter parallel edges and a pair of converging edges between said parallel edges, said flaps being sewn together along said converging edges and a central, longitudinally extending seam being created in each flap normal to said parallel edges so as to define said four panel members of elastic material.

3. The muzzle of claim 2 wherein said strap portion is formed from a length of narrow non-elastic material and includes a central section wider than end sections thereof.

4. The muzzle of claim 3 wherein said end sections are formed by doubling over the strap material and sewing the doubled-over material together.

5. An anti-barking and anti-biting muzzle for animals comprising a muzzle portion adapted to fit over the snout of the animal and a strap portion adapted to fit over the head of the animal and to be secured behind the head of said animal, said muzzle portion including at least two generally trapezoidal panel members of elastic material with adjacent panel members connected together along the adjacent converging edges thereof to create a generally frustoconical shape, said strap portion being connected at each end thereof to opposed seams of said muzzle portion.

6. The muzzle of claim 5 including a central seam extending longitudinally of one of said panel members.

7. The muzzle of claim 5 or claim 6 wherein said strap portion is formed from a length of narrow non-elastic material and includes a central section wider than end sections thereof.

8. The muzzle of claim 7 wherein said end sections are formed by doubling over the strap material and sewing the doubled-over material together.

1/3

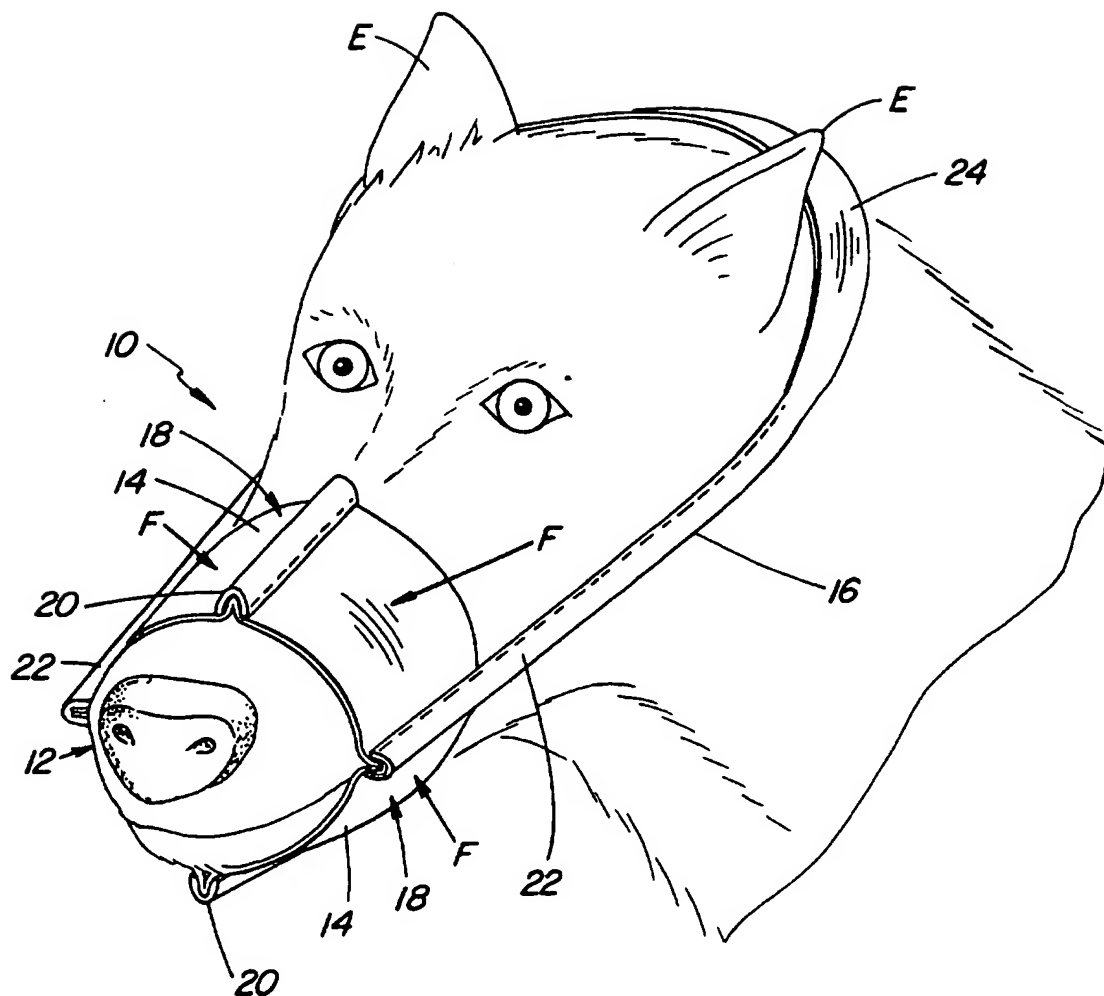


FIG. 1

2/3

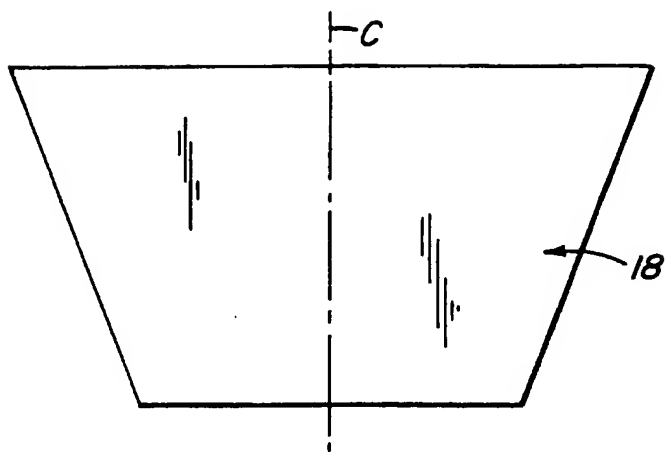


FIG. 2

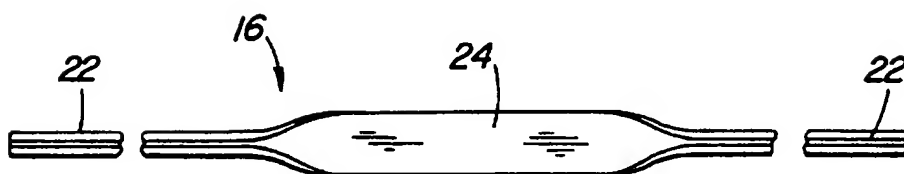


FIG. 3

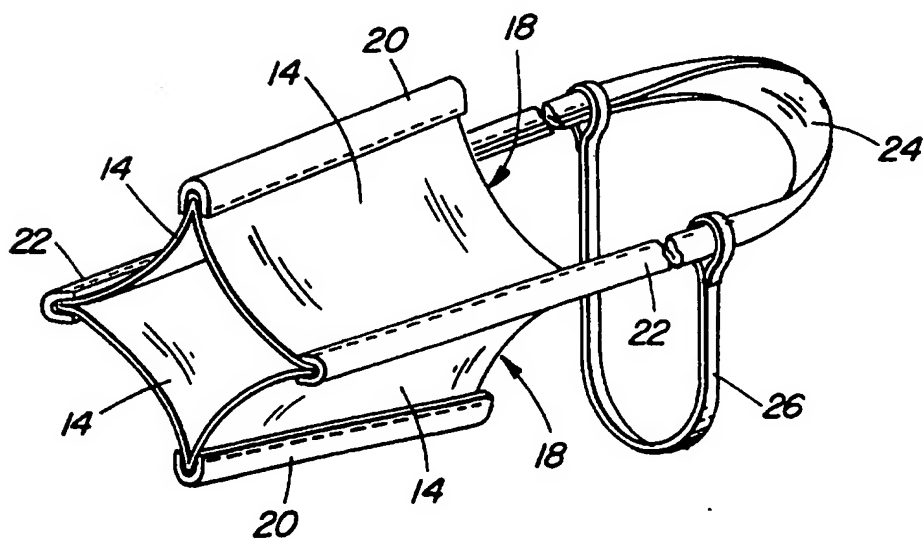


FIG. 4

3/3

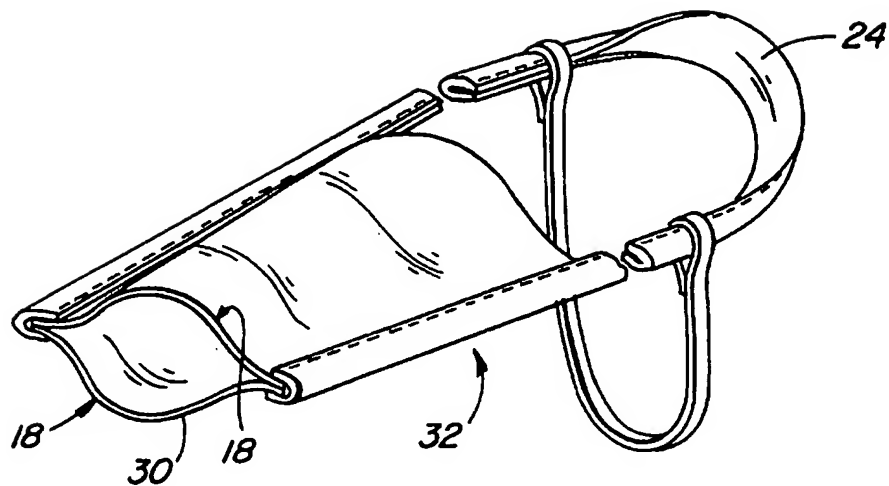


FIG. 5

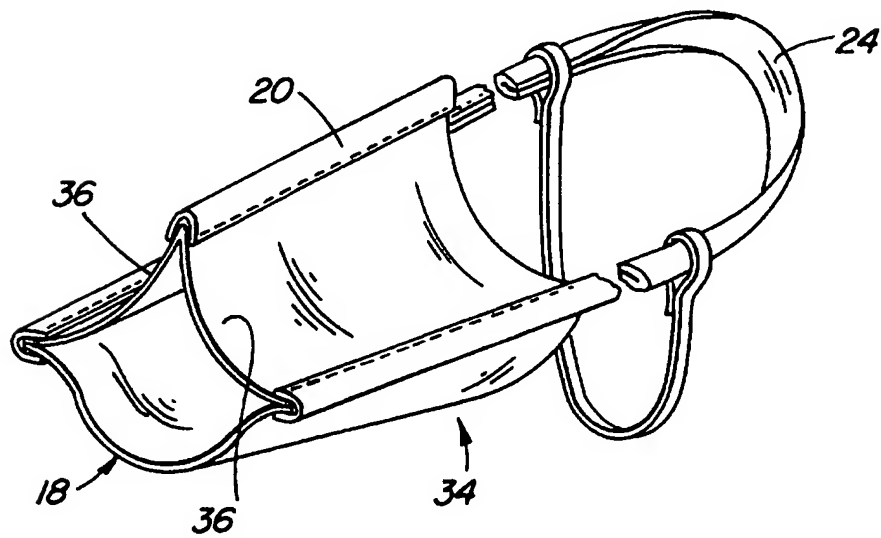


FIG. 6

INTERNATIONAL SEARCH REPORT

Int: nal Application No
PCT/CA 96/00872

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A01K25/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 A01K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 299 531 A (DIETZ DAVID) 5 April 1994 see column 2, line 54 - column 4, line 10; figures	1,5
Y	---	6
Y	US 4 252 086 A (SCHENCK CHARLES T) 24 February 1981 see column 1, line 63 - column 2, line 7; figure 1	6
A	---	1-8
A	GB 2 246 278 A (SMITH LOUISA RUTH) 29 January 1992 see abstract; figure 1	1-8
A	---	1-8
A	US 5 267 529 A (ZELINGER JONATHAN) 7 December 1993 see column 1, line 52 - column 2, line 54; figures 1-3	1-8

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *A* document member of the same patent family

Date of the actual completion of the international search

14 February 1997

Date of mailing of the international search report

14. 04. 97

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+ 31-70) 340-3016

Authorized officer

Kock, S

INTERNATIONAL SEARCH REPORT

International Application No
PCT/CA 96/00872

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A-5299531	05-04-94	NONE	
US-A-4252086	24-02-81	NONE	
GB-A-2246278	29-01-92	NONE	
US-A-5267529	07-12-93	NONE	